

# STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

December 20, 2005

Crescent Water Association Attn Robert Beauvais Po Box 26 Joyce WA 98343

Dear Mr. Beauvais:

Re: Water Right Application No. S2-30299

This letter is to acknowledge that the Department of Ecology received your water right application. We have assigned your application the number indicated above. Please include this number in future correspondence regarding your application.

When we begin actively evaluating applications in your area, we will prepare a public notice and send it to you with publication instructions. It will be sometime before we are able to begin working in your area.

The availability of water in Washington State is a serious problem. Much of the water in our state has already been appropriated. The competition for water has escalated with our state's increasing population, conflicting water policy issues, and grave declines in salmon and other fish populations. With the many demands on the state's water resources, a favorable permit decision is not always possible. You may want to consider purchasing all or part of an existing water right.

Please be sure to notify Ecology of changes such as address, property ownership, or variations in your proposed water use plans. If you would like further information on your application, please contact our office at (360) 407-6300.

Sincerely,

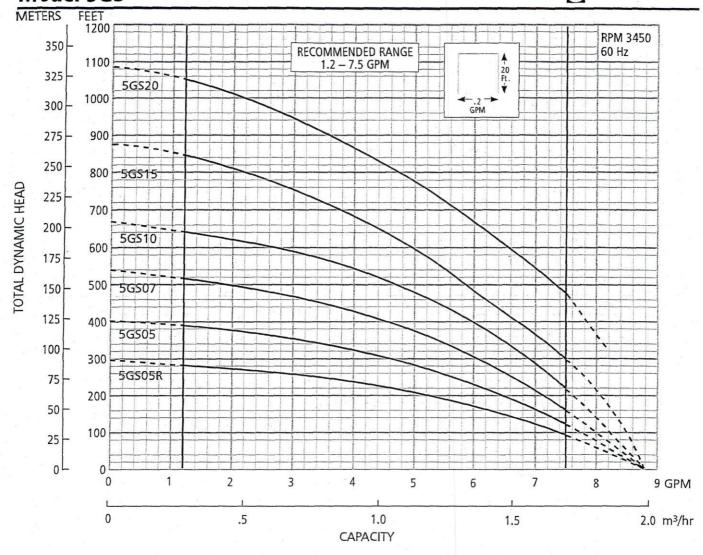
Teresa Hanson

Teresa Hanson Water Resources Program Southwest Regional Office

TH:th app-new.doc

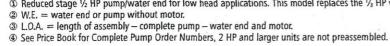
← 3.90" Effective diameter with cable

- 3.75"



#### **DIMENSIONS AND WEIGHTS**

0 1 - 11 1		Dhara	C4		Length (inche	s)		Weight (lbs.)		DISCHA	ARGE 11/4"
Order Number	HP	Phase	Stages	W.E.@	Motor	L.O.A.3	W.E.	Motor	Total	<b>^ ^</b>	
5GS05412R,22,11,21®	1/2R①	1	9	12.4	9.5	21.9	7 .	19	26		
5GS05412,22,11,21	1/2	1	12	14.5	9.5	24.0	8	19	27	1 6	
5GS07412,22	3/4	1	15	16.5	10.7	27.2	9	21	30	<u>-</u>	
5GS10412,22	1	1	20	20.0	11.8	31.8	11	24	35	W.E.	
5GS15412	11/2	1	26	25.3	13.6	38.9	14	28	42		>
5GS15422	11/2	1	26	25.3	15.1	40.4	14	31	45		l i
5GS15432,34	11/2	3	26	25.3	11.8	37.1	14	24	38	.0.A	DE
5GS20@	2	1	33	30.1	15.1	45.2	- 17	33	50	] - 🕌	-
5GS20®	2	3	33	30.1	13.6	43.7	17	28	45	3	1 1



Didn't See pink slip

for this one - was at

for this one - was at

for this one - was at

lunch : Pink slip may

lunch : Dawn

have ended up w. Dawn

have ended up w. Dawn

have ended up wall slot
or inyoen mail slot
or inyoen mail slot
or inyoen fraueen

Maureen

yelm Comm Schools

Yelm Comm Schools

Yelm Comm Schools

Pad 5000 / They

were a walk in/

were a walk in/

pad 5000 / They

Tawn

Pink Copy for your Files

Pink Copy for your Files

1/2 6" casing start@ 12240 gal\*

#### PUMPING TEST DATA COLLECTION FORM

System	ı ID:	Owner: Y=1 A	1 South Des	TRUT	Well Tag No	D.: AEAIGA	
	Source ID: 301	Owner: YELM SCHOOL DISTRICT System Name: LACKAMAS WS			Well Name:		
Type of			y: 150 Morris		Date: 7/21/04		
	Water Level (as mean				County: Thurston		
	ation Wells?	January Homeron	to pomey.		Well Elevati		
	ce of observation w	rell (r) from pu	mped well (ft):		,, on Dievan	()	
	Time (t) since		(-)				
	pumping	Depth to	16		Pumping		
	began	Water	Drawdown		Rate (Q)	"	
Time	(min)	Level (ft)	(ft)	t/r <sup>2</sup>	[gpm]	Comments	
	Am start	145			181	STATIC	
	1	158	13		14		
	2	164.2	19.2	-			
	3	169,90	24.9				
	4	175.05	30.05				
	5	177.15	32.15				
	6	181,75	36.75				
	7	185,65	40.65			i	
	8	189.35	44,35				
	9	193.05	48.06				
	io	196-Z	542				
	10	1 / 2	2017				
	45	238.0	93.0				
10:29	50	238.0	93,0				
	55	73810	93,0				
10:39	60	238.0	93.0		÷ .		
12	90	238.0	93.0				
	150	238.0	93.0		11-0		
	150	238.0	93.0		10.5		
12:25		238.0	93.0		10.4		
2:40	195	238.0	93.0		10,2		
12:55	210	238.0	93.0		10.0		
1:10	2:25	238.0	93.0		10		
1:25	2.40	23810	93,0		10		
1:40	255	238.0	93.0		10		
1:56	310	238.0	93.0		10		
2:13	325	238.0	93.0		10		
2:28	340	23810	93.0		10		
2:58	370	25810	93.0		9.5		
3:12	344	23810	93.0		9.5		
3:12	390	23%,0	93.0		9.5		
3:42	399	23810	93.0		9.5		
4.00	432	238.0	93.0		9,5		
4:13	455	ର ୬ ଓଡ଼ ଜୁନ	93,0		9.5 9.5 9.5		
	470	3360	93,0		9,5	end@ 165100	
4:30							

WSDM Appendices

June 1999

TEST READINGS BY JAN SANGDER

\* YCS SUPPLIED WATER WETER

#### RECOVERY DATA COLLECTION FORM

System	ı ID:	Owner: Yel	m School	District	Well Tag No.	: AEA UH	
	Source ID: So1	System Nan					
	f Test:	Conducted I	Date: 7 21 04				
	Water Level (as mea		County: Thurston				
	ration Wells? No	Edica nom retere	onec ponit).	145	Well Elevation		
	ce of observation v	vell (r) from n	umned w	ell (ft)	T WOII BIOVALIO	ii (NBD).	
Distant	l coservation v	Time (t')	T T	1			
	Time (t) since	since		Depth to			
1	pumping	pumping		Water	Residual		
	began	stopped		Level	Drawdown		
Time	(min)	(min)	t/t'	(ft)	(ft) <b>3</b>	Comments	
4:38 1		1		7,9	230110		
1.201	484	2		19.5	218,50		
	483	4		23.67	214,33		
	484	5		27	211.00		
	486	7		34.5	203.50		
	487	8		37.92	200.08		
	-488	9		43.58	194,42		
	489	10		47,17	190,83		
	494	15		57.5	180,50		
	499	20		65	173.0		
	504	25		70.35	167.65		
	509_	30		74.4	163.60		
	514	35		75.8	162,20		
	519	40		77.05	160,95		
	524	45	9	78.6	159.40		
	599	50		79.65	158,35		
	534	55		80.3	157.70		
	539	60		81.22	15678	10	
6pm	569	90		83.9	154 110		
Tom	629	150		86,6	151.40		
80m	. 689_	210		88.2	149.80		
9pm	_ 749 _	270		89.4	148,60		
'						(3.6' ABOVE	
						STATIC 145'>	
7-22	2-04 (4)						
				,			
	3:30 PM-		om Sit			ING WI PULL ON	
	4.301m-	23 Fr	om 6	atic 14	15' CPUMP	OFF FOR GOVIN)	
						/	

WSDM Appendices WAS USED UNTIL 3:30 June 1999

2 = LEVEL OF WATER BELOW THE TOP OF CASING

27.4

69543

File: Orig. & First Copy - Dept of Ecology Second Copy - Owner; Third Copy - Driller

WATER WELL REPORT State of Washington

Start Card No. W108359 Unique Well ID AEA164

Water Right Permit No.

(1) OWNER: Name DILLIARD JENSEN LOCATION OF WELL: County THURSTON

(2)

Artesian flow 0

Temperature of water

gal/min Date

Address 19207 NEAT RD SE YELM WA 98597

Page 1 of SW 1/4 SW 1/4 Sec 24 T 16 N R 2 B

3)	PROPOSED USE: DOMESTIC	(10) WELL LOG or DECOMMISSIONING PROCEDURE DESCRIPT	LION	
4)	Type of work: NEW WELL	<del></del>		_
	Method: ROTARY	Material	From	1
= \	DIMENSIONS: Diameter of well 6 inches.	TOP SOIL AND GRAVEL	0	1 :
-,	Drilled 254 feet. Depth of completed well 254 ft.	BROWN CLAY, GRAVELS, COBBLES	ı	i
	DITIES 231	BROWN CLAY, GRAVELS		i :
	CONSTRUCTION DETAILS:	GREY SANDY CLAY, GRAVELS		1
,,	Casing instid: 6 Diam. from 0 ft. to 250.5 ft.	GREY SILTY SANDY CLAY		1
	Welded X Diam. from ft. to ft.	GREY STICKY CLAY	manage 1	i
		The state of the s	250	1
	_			1
	Threaded _	1		
	Perforations: Yes _ No X			1
	Type of perforator used			1
	Size of perforations in. by in.			i '
	perforations from ft. to in.			1
	perforations from ft. to in.			ľ
	perforations from ft. to in.			1
	perforations from			
	Screens: Yes X No _	.		ľ
	Manufacturer's Name JOHNSON		i	ľ
	Type STAINLESS Model No			
	Diam 6 Slot size 8 from 254.4 ft. to 250.5 ft.	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	İ	ľ
	Diam Slot size from ft to ft.	₹: <sup>∞</sup> 7	-i	
700	Didu Dioc 5125			
	Gravel packed: Yes No X Size of gravel	= = = 0		
	Gravel placed from ft. to ft.			
		. 9.		
	Surface seal: Yes X No _ To what depth? 23 ft.			
	Material used in seal BENTONITE			
	Did any strata contain unusable water? Yes _ No X			
	Type of water? Depth of strata	- ω Ι_	1	
	Method of sealing strata off		1	
			!	
0 5	PUMP: Manufacturer's Name  Type H.P. 0		!	
	Type H.P. 0		!	90
	WATER LEVELS: Surface elev above mean sea level ft.		!	ļ.
			;	•
	Static level 133.1 ft. below top of well Date 08/14/98   Artesian pressure lbs. per sq. in. Date		;	
	Artesian pressure is controlled by		;	
- 8	Artesian pressure is concretion by			80.
	WELL TESTS: Pump test made? By whom?	Work Started 08/10/98 Completed 08/14/98		
	rield 0 gal./min. with ft. drawdown after hrs			_
		WELL CONSTRUCTOR CERTIFICATION:		
	Yield 0 gal./min. with ft. drawdown after hrs	I constructed and/or accept responsibility for con	nstruc	:t
	Recovery data:	this well, and its compliance with all Washington		
Lmo	Wtr. Lvl. Time Wtr. Lvl. Time Wtr. Lvl.	ruction standards. Materials used and the information	tion r	
	1	above are true to my best knowledge and belief.		
	1	Name RICHARDSON WELL DRILLING		
	1	Address P.O. Box 4427 Tacoma No. 98444		
	Date of test	1 Hodel.		
	r test 0 gal/min with ft. drawdown after hr	(Signed) Della Lic. No	2017	

Contractor's Registration No. RICHAW\*3210B

| Based on form ECL 050-1-20 (2/93)\*\*f-1329- by Spe-

Date 09/03/

ed Systems Co

#### LEGAL DESCRIPTION / PLACE OF USE

THAT PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25 AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 16 NORTH, RANGE 2 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS:

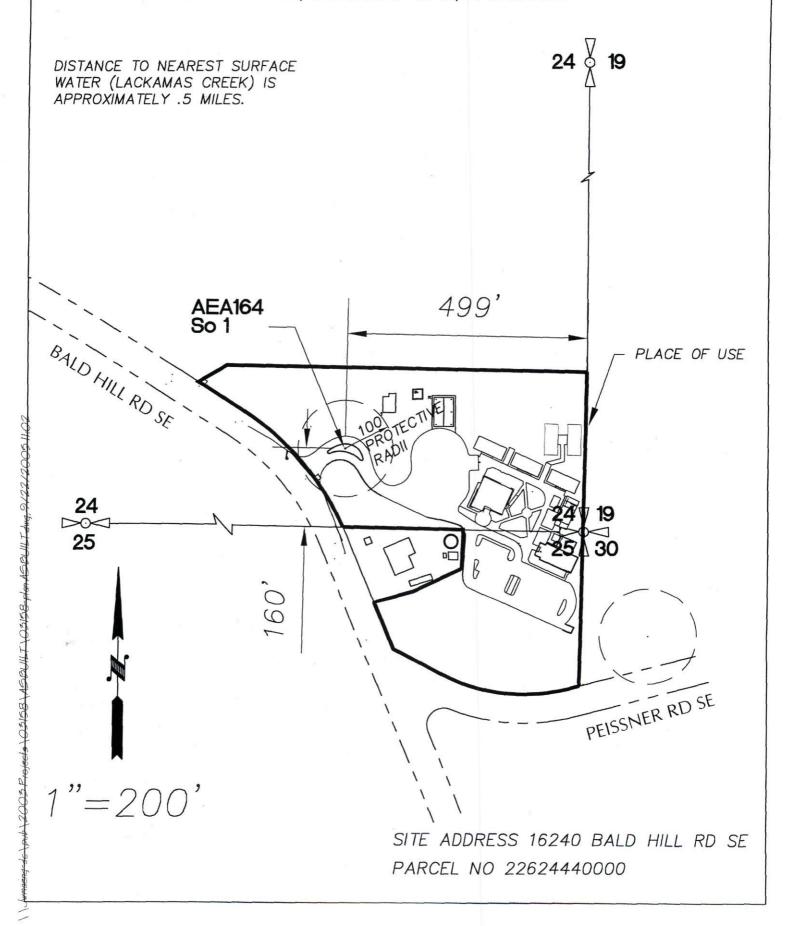
BEGINNING AT THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 25; THENCE SOUTH 1°20'34" WEST ALONG THE EAST LINE OF SAID NORTHEAST QUARTER, A DISTANCE OF 322.74 FEET TO THE NORTHERLY RIGHT OF WAY OF PEISSNER ROAD SE; SAID RIGHT OF WAY BEING A STRIP OF LAND, 30 FEET IN WIDTH, LYING NORTHERLY OF THE PEISSNER ROAD CENTERLINE, AS DESCRIBED IN THURSTON COUNTY QUIT CLAIM DEED RECORDED JULY 12, 1989, IN VOLUME 1660 OF DEEDS, ON PAGE 15, UNDER AUDITOR'S FILE NO. 8907120101; THENCE ALONG SAID NORTHERLY RIGHT OF WAY THE FOLLOWING COURSES: SOUTH 74°56'34" WEST, A DISTANCE OF 17.05 FEET TO THE BEGINNING OF A CURVE TANGENT TO SAID LINE; THENCE WESTERLY AND NORTHWESTERLY A DISTANCE OF 280.23 FEET ALONG THE CURVE CONCAVE TO THE NORTH, HAVING A RADIUS OF 375.00 FEET AND A CENTRAL ANGLE OF 42°49'00"; THENCE NORTH 62°14'26" WEST TANGENT TO SAID CURVE, A DISTANCE OF 110.42 FEET TO THE NORTHERLY RIGHT OF WAY OF BALD HILL ROAD SE, AS SHOWN ON SURVEY FOR YELM SCHOOL DISTRICT NO. 2, RECORDED JULY 23, 2003, UNDER AUDITOR'S FILE NO. 3554747; THENCE DEPARTING FROM THE NORTHERLY RIGHT OF WAY OF SAID PEISSNER ROAD SE, NORTH 22°46'06" WEST, ALONG THE NORTHERLY RIGHT OF WAY OF SAID BALD HILL ROAD SE, A DISTANCE OF 106.09 FEET TO THE SOUTHERLY BOUNDARY OF PARCEL A OF BOUNDARY LINE ADJUSTMENT NO. 0081, RECORDED APRIL 27, 1983 IN VOLUME 1 OF BOUNDARY LINE ADJUSTMENTS, ON PAGES 601-604, UNDER AUDITOR'S FILE NO. 8304270024; THENCE ALONG THE BOUNDARY OF SAID PARCEL A THE FOLLOWING COURSES: NORTH 73°39'10" EAST, A DISTANCE OF 84.76 FEET; THENCE NORTH 64°27'40" EAST, A DISTANCE OF 111.80 FEET; THENCE NORTH 01°01'34" EAST, A DISTANCE OF 80.00 FEET TO THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 24; THENCE NORTH 88°58'26" WEST ALONG SAID SOUTH LINE, A DISTANCE OF 250.00 FEET TO THE NORTHERLY RIGHT OF WAY OF SAID BALD HILL ROAD SE, AT THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 580.00 FEET AND A CENTRAL ANGLE OF 32°10'38" AND BEING SUBTENDED BY A CHORD WHICH BEARS NORTH 41°23'57" WEST 321.46 FEET; THENCE DEPARTING FROM THE BOUNDARY OF SAID PARCEL A, ALONG THE NORTHERLY RIGHT OF WAY OF SAID BALD HILL ROAD SE THE FOLLOWING COURSES: NORTHWESTERLY ALONG SAID CURVE, A DISTANCE OF 325.73 FEET; THENCE NORTH 57°29'16" WEST TANGENT TO SAID CURVE, A DISTANCE OF 108.57 FEET; THENCE DEPARTING FROM THE NORTHERLY RIGHT OF WAY OF SAID BALD HILL ROAD SE NORTH 58°56'01" EAST, A DISTANCE OF 67.76 FEET TO A LINE PARALLEL WITH AND 330.00 FEET PERPENDICULAR FROM THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 24; THENCE SOUTH 88°58'26" EAST ALONG SAID PARALLEL LINE, A DISTANCE OF 753.00 FEET TO THE EAST LINE OF SAID SOUTHEAST QUARTER; THENCE SOUTH 00°58'18" WEST ALONG SAID EAST LINE, A DISTANCE OF 330.00 FEET TO THE POINT OF BEGINNING. CONTAINING 7.37 ACRES, MORE OR LESS.

SITUATE IN THE COUNTY OF THURSTON, STATE OF WASHINGTON.

SUBJECT TO EASEMENTS, RESTRICTIONS AND RESERVATIONS OF RECORD.

03158/CORRESPONDANCE/03158 LEGAL place of use.DOC

## EXHIBIT A SECTION 24, TOWNSHIP 16 N, RANGE 2E



#### Ground Water Contamination Susceptibility Assessment Survey Form Version 2.2

IMPORTANT! Please complete one form for each ground water source (well, wellfield, spring) used in your water system. Photocopy as necessary.

PART I: System Information
Well owner/manager: Yelm Community Schools
Water system name: Lackamas Elementary Water System
County: Thurston
Water system number: Source number: 501
Well depth: (ft.) (From WFI form)
Source name: Well #
WA well identification tag number: $A = A - 1 = 6 = 4$
well not tagged
Number of connections: 6 Population served: 254
Township: 16 N Range: ZE
Section: 24 1/4 1/4 Section: 5w, sw
Latitude/longitude (if available): N 46 50,997 / w 122 29.250
How was lat./long. determined?
global positioning device survey topographic map  other: u.s. e.s. Maps
* Please refer to Assistance Packet for details and explanations of all questions in Parts II through V.
PART II: Well Construction and Source Information
1) Date well originally constructed: 8 / 14 /98 month/day/year
last reconstruction: / / month/day/year
information unavailable

2) Well driller: Richardson Well Brilling
P.O. 60x 44427
Tacona, WA 98444
well driller unknown
3) Type of well:
X_Drilled: X_rotary bored cable (percussion) Dug
Other: spring(s) lateral collector (Ranney)
driven jetted other:
Additional comments:
4) Well report available? X YES (attach copy to form) NO
If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.
5) Average pumping rate:(gallons/min)
Source of information: Pump Test
If not documented, how was pumping rate determined?
Pumping rate unknown
6) Is this source treated? $N_{C}$
If so, what type of treatment:
disinfection filtration carbon filter air stripper other
Purpose of treatment (describe materials to be removed or controlled by treatment):
7) If source is chlorinated, is a chlorine residual maintained:YESNO
Residual level: (At the point closest to the source.)

PART III: Hydrogeologic Information
1) Depth to top of open interval: [check one]
$_{-}$ < 20 ft $_{-}$ 20–50 ft $_{-}$ 50–100 ft $_{-}$ 100–200 ft $_{\times}$ > 200 ft
information unavailable ('<' means less than; '>' means greater than)
2) Depth to ground water (static water level):
20  ft $50-100  ft$ $50-100  ft$
flowing well/spring (artesian)
How was water level determined?
_ well log X other: Pump Test and Well Logy
depth to ground water unknown
3) If source is a flowing well or spring, what is the confining pressure:
psi (pounds per square inch)
or feet above wellhead
4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source:YESNO
5) Wellhead elevation (height above mean sea level): 509 (ft)
How was elevation determined? topographic map Drilling/Well Log altimeter
X other: Topographic Survey (on datum)
information unavailable
6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)
evidence of a confining layer in well log
no evidence of a confining layer in well log
If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the <b>bottom</b> of the <b>lowest confining layer</b> ?   X YES NO
information unavailable

7) Sanitary setback:	
$_{-}$ < 100 ft* $_{-}$ 100-120 ft $_{-}$ 120-200 ft $_{-}$ > 200 ft * if less than 100 ft describe the site conditions:	
8) Wellhead construction:	
wellhead enclosed in a wellhouse	
controlled access (describe):	
other uses for wellhouse (describe):	
no wellhead control	
9) Surface seal: 18 ft	
< 18 ft (no Department of Ecology approval)	('<' means less than)
< 18 ft (Approved by Ecology, include documentation)	('<' means less than)
$\chi$ > 18 ft	('>' means greater than)
depth of seal unknown	
no surface seal	
10) Annual rainfall (inches per year):	
$_{-}$ < 10 in/yr $_{-}$ 10-25 in/yr $_{\times}$ > 25 in/yr	

PART IV: Mapping Your Ground Water	Resource	
1) Annual volume of water pumped: 664,000	(gallons)	
How was this determined?		
meter		
estimated: pumping rate (		_
pump capacity (	School Irrigat (2500 + 180) + (3400 + gallowy logs gallok	20) 20) 20s
2) "Calculated Fixed Radius" estimate of ground (see Instruction Packet)	d water movement:	
6 month ground water travel time:	113	_(ft)
1 year ground water travel time :	160	_(ft)
5 year ground water travel time:	358	_(ft)
10 year ground water travel time:	507	_(ft)
Information available on length of scree	ned/open interval?	
$\times$ YES $\_$ NO		
Length of screened/open interval:	(ft)	
3) Is there a river, lake, pond, stream, or other boundary? YES X NO (mark a	obvious surface water land identify on map).	oody within the 6 month time of travel
4) Is there a stormwater and/or wastewater facil month time of travel boundary? YES	ity, treatment lagoon, o	
Comments:		

#### PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

		6 month	1 year	5 year	unknown
likely pesticide application					
stormwater injection wells					
other injection wells					
abandoned ground water well					
landfills, dumps, disposal areas					
known hazardous materials clear	ın-up site				
water system(s) with known qua	ality problems				
population density $> 1$ house/a	cre				
residences commonly have sept	ic tanks	n	_X_	Χ	
Wastewater treatment lagoons					
sites used for land application o	f waste				
locate and mark any of  If other recorded or potential so	clude a map of the wellhead a the following.)	and time o	f travel a	areas wii	th this form. Please

2)	C	:		1:4	
<b>L</b> )	Source	specific	water	quanty	records:

Please indicate the occurrence of any test results since 1986 that meet the following conditions: (Unless listed on assessment, MCLs are listed in assistance package.)

A. <u>Nitrate</u> : (Nitrate MCL = $10 \text{ mg/l}$ )	YES
Results greater than MCL	
< 2 mg/liter nitrate	
2-5 mg/liter nitrate	·
> 5 mg/liter nitrate	
Nitrate sampling records unavailable	·
B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l.) Results greater than MCL or SAL	1
C. <u>EDB/DBCP</u> : (EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.) EDB/DBCP detected below MCL at least once EDB/DBCP detected above MCL at least once	
EDB/DBCP never detected	
EDB/DBCP tests required but not yet completed	
EDB/DBCP tests not required	X
D. Other SOCs (Pesticides):	YES
Other SOCs detected	
(pesticides and other synthetic organic chemicals)	
Other SOC tests performed but none detected	
(list test methods in comments)	
Other SOC tests not performed	X
If any SOCs in addition to EDB/DBCP were detected, please identify and date performed, but no SOCs detected, list test methods here:	
E. Bacterial contamination:	<u>YES</u>
Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records).	
Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source	
Source sampling records for bacteria unavailable	

## Part VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for theses sources, a more detailed delineation method should be considered.

	hydrologic boundaries within the 10 year over a stream, river, lake, up a steep hil	
YES \( \times \) NO		
Describe with references to map	p produced in Part IV:	
		 -
		 -
2) Aquifer Material:		
(a) (a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	og or other geologic/engineering reports ound conditions are identified as fracture	
_ YES 💢 NO		
	og or other geologic/engineering reports ound conditions are primarily identified	
YES \( \times NO		

? (These can include sources located on and/or shallow flowing wells and springs.)
industrial) located within the CFRs?
proximately 500 gal/min within
YES NO unknown
YES NO unknown X
tions that you believe may affect the eference them to locations on the map

#### **Suggestions and Comments**

Did you attend one of the susceptibility workshops?	YES	X NO	
Did you find it useful?	YES	NO	
Did you seek outside assistance to complete the assessment?	X YES	NO	
This form and instruction packet are still in the process of developm questions will help us upgrade and improve this assessment form. or problematic please let us know. How could this susceptibility as Did the instruction package help you find the information needed to time did it take you to complete the form? Were you able to compleadditional/outside expertise? Do you feel the assessment was value comments or constructive criticisms you have would be appreciated.	nent. Your comm If you found part sessment be imp complete the ass ete the assessme able as a learning	nents, suggestions and icular sections confusir roved or made clearer? sessment? How muchent without	ng i

## Lackamas Elementary Fixed Radii Calculations

Well #1

General Equation:

$$r = \sqrt{\frac{Qt}{\pi nH}}$$

Where: Q = pumping rate in cf/yr (cubic feet/year)

t = time of travel in year

n = soil porosity (assumed to be 0.22)

H = the screened interval (taken as 10 if the casing is unscreened)

pi = 3.1416

6 Month:

$$r = \sqrt{\frac{88770 (0.5)}{3.1416 (0.22)(5)}}$$
 r = 113'

1 Year:

$$r = \sqrt{\frac{88770 (1.0)}{3.1416 (0.22)(5)}}$$
 r = 160'

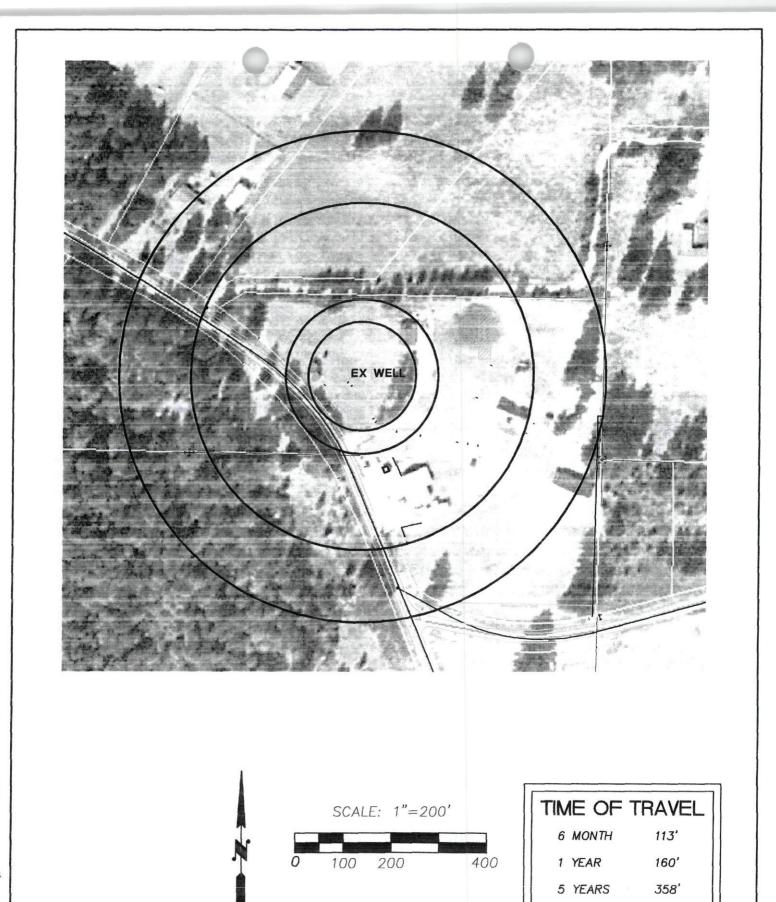
5 Year:

$$r = \sqrt{\frac{88770(5.0)}{3.1416(0.22)(5)}}$$
 r = 358'

10 Year:

$$r = \sqrt{\frac{88770(10.0)}{3.1416(0.22)(5)}}$$
 r = 507'

	NI SOUKC	ES LISTED		LEGEND: 6 = 6 month fixed radius
		-		1 = 1 year fixed radius
CATEGORY I - Sources designed to discha	arge substances			5 = 5 year fixed radius
				10 = 10 year fixed radius
	PRESENT	NOT PRESENT	DISCUSSION	
Subsurface percolation		X		
Injection wells		X	-	
Land application		X		
CATEGORY II - Sources designed to store,	treat, and/or disch	narge unplanned rel	lease	
	PRESENT	NOT PRESENT	DISCUSSION	
Landfills		X	-	
Open dumps	1 5 40	Х		
Residential	1,5,10	+		
Surface impoundments		X		
Waste tailings		X		
Waste piles Material stockpiles		X		
Graveyards		X		
Animal burial	1,5,10		Residential	
Animal burial Aboveground storage tanks	5,10		Residential	
Underground storage tanks	5,10	X	Residential	
Containers		X	+	
Open Burning Sites	10	^	Residential	
Detonation sites	10	X	residential	
Radioactive disposal sites		X	+	
CATEGORY III - Sources designed to retain	substances durin	g transport or trans	mission	
	PRESENT	NOT PRESENT	DISCUSSION	
Pipelines		X		
Materials transport and transfer operations		X		
Hazardous waste		X		
Non-hazardous waste		X		
Non-waste		X		
The state of the s				
CATEGORY IV - Sources discharging subst	ances as a conse	quence of other plan	nned activities	
CATEGORY IV - Sources discharging subst				
	PRESENT	quence of other plan	DISCUSSION	
Irrigation practices	PRESENT 1,5,10		DISCUSSION Residential	
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Irrigation practices Pesticide applications Fertilizer applications Animal feeding operations De-icing salts	PRESENT 1,5,10 1,5,10 1,5,10	NOT PRESENT	DISCUSSION Residential Residential Residential	
Irrigation practices Pesticide applications Fertilizer applications Animal feeding operations De-icing salts Urban runoff	PRESENT 1,5,10 1,5,10	NOT PRESENT  X X	DISCUSSION Residential Residential	
CATEGORY IV - Sources discharging subst  Irrigation practices  Pesticide applications  Fertilizer applications  Animal feeding operations  De-icing salts  Urban runoff  Percolation of atmospheric pollutants  Mining and mine drainage	PRESENT 1,5,10 1,5,10 1,5,10	NOT PRESENT	DISCUSSION Residential Residential Residential	
Irrigation practices Pesticide applications Fertilizer applications Animal feeding operations De-icing salts Urban runoff Percolation of atmospheric pollutants	PRESENT 1,5,10 1,5,10 1,5,10 1,5,10	NOT PRESENT  X X X	DISCUSSION Residential Residential Residential County Roadway	
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Civil • Municipal • Geotechnical Engineering and Planning

Jerome W. Morrissette & Associates Inc., P.S. 1700 Cooper Pt. Road S.W. #B-2, Olympia, Wa. 98502-1110 Ph 360.352.9456 Fx 360.352.9990

FIXED RADII

YELM COMMUNITY SCHOOLS LACKAMAS SCHOOL

507'

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10 YEARS

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#### STATE OF WASHINGTON

#### DEPARTMENT OF HEALTH

#### **SOUTHWEST DRINKING WATER OPERATIONS**

2411 Pacific Ave • PO Box 47823 • Olympia, Washington 98504-7823 (360) 664-0768 • FAX: (360) 664-8058 TDD Relay 1-800-833-6388

September 29, 2005

Erling Birkland Lackamas Elementary School Post Office Box 476 Yelm, Washington 98597-0476

Dear Mr. Birkland:

Subject:

Lackamas Elementary School Water System, ID #AB023, Thurston County;

Small Water System Management Program, ODW Project #05-0519

The Small Water System Management Program (SWSMP) for the Lackamas Elementary School Water System, received by the Office of Drinking Water (ODW) on May 27, 2005, with revisions submitted on September 20, 2005, has been reviewed, and in accordance with the provisions of WAC 246-290-105, is **APPROVED**.

Approval of this plan is valid as it relates to current standards outlined in WAC 246-290-revised March 2003, WAC 246-293-revised September 1997, RCW 70.116, and the requirements of the Municipal Water Law –effective September 9, 2003, and is subject to the qualifications herein. Future revisions in the rules and statutes may be more stringent and require facility modification or corrective action.

An updated approval of this SWSMP is not required unless ODW requests an update or plan amendment pursuant to WAC 246-290-105 (5).

#### APPROVED NUMBER OF CONNECTIONS

Based upon information supplied in the SWSMP, the limiting factor in determining the "approved number of connections" is the water rights. Based on the information provided in the SWSMP, this system has adequate capacity to serve the elementary school and one (1) residence. The approved number of total connections is 2.

Erling Birkland September 29, 2005 Page 2

The Lackamas Elementary School Water System is expected to permit additional new service connections in a manner consistent with the SWSMP so that the physical capacity and water rights limitations, which are represented by the approved number of total connections, is not exceeded. New non-residential connections may need to be evaluated on a case-by-case basis to determine the relative impact on the capacity limitation.

#### LOCAL GOVERNMENT CONSISTENCY

Submittal of this SWSMP was not required to submit the local government consistency determinations to or from Thurston County Planning Department, because this is a Non-Transient, Non-Community Water System (NTNC) water system. Because this system is a NTNC, this SWSMP meets local government consistency requirements for SWSMP approval pursuant to RCW 90.03.386 and RCW 43.20.

#### WATER RESOURCES

The Department of Ecology (Ecology) sent comment letters dated August 2, 2005. The Ecology letter indicated that there were no inconsistencies with the water right self-assessment included in the SWSMP, but the system may want to apply for more water rights in the future. Please work with Ecology to resolve any water right issues. Therefore, the information presented in the SWSMP will be considered valid as it applies to this SWSMP approval.

Because Ecology has jurisdiction with respect to water rights determinations, ODW's approval of this SWSMP cannot be construed as a guarantee of water rights or legal use of water under the approved SWSMP. ODW's approval is subject to subsequent determinations by Ecology concerning the water rights for this system, which may require submittal of additional planning documents or other submittals to ODW. Questions concerning water rights or any uncertainties or discrepancies concerning water rights issues should be directed to Ecology.

#### SERVICE AREA AND DUTY TO SERVE

Pursuant to RCW 90.03.386 (2), the service area identified in the SWSMP (as denoted in the enclosed service area map) may now represent an expanded "place of use" for the water system's water right. Changes in service area should be made through a SWSMP amendment.

Pursuant to RCW 43.20.260, this water system has a duty to provide new water service within its retail service area. This SWSMP has incorporated information that identifies the procedures and processes put into place to ensure that the water system can provide timely and reasonable retail water service within the retail service area.

#### WATERSHED PLANNING

The watershed plan for WRIA 13, Deschutes Watershed, has been completed, but has not been approved. The watershed committee continues to actively participate in various projects. ODW

Erling Birkland September 29, 2005 Page 3

encourages Lackamas Elementary School Water System to become involved in this process. Please contact Ecology at (360) 407-6310 for more information.

Thank you for your cooperation. Thurston County is being notified of the terms and requirements of this approval and the determination of the approved number of connections.

If you have any questions, please contact Regional Planner Karen Klocke at (360) 664-2999 or Regional Engineer Regina Grimm at (360) 586-4679.

Sincerely,

KAREN KLOCKE

Office of Drinking Water Regional Planner

REGINA GRIMM, P.E.

Office of Drinking Water Regional Engineer

**Enclosures** 

cc: Terry Weeks, Jerome W. Morrissette and Associates Inc.

Thurston County Health Department Thurston County Planning Department

Mike Dexel, Department of Ecology - SWRO

Stephen Leibenguth, ODW Bonnie Waybright, ODW Cheri Paine, ODW

# **Small Water System Management Program Guide:**

A guide for small non-expanding community Group A water systems

January 2000



For more information or additional copies of this manual contact:

Division of Drinking Water PO Box 47822 Olympia, WA 98504-7822

www.doh.wa.gov

800-521-0323 FAX 360-236-2253 or 360-236-2252

For persons with disabilities, this document is available on request in other formats.

Please call 1-800-525-0127

(TDD Relay 1-800-833-6388)

DOH PUB #331-134

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#### **Preface**

Owning and operating a public drinking water system is a big responsibility. There are few things more important to maintaining good health than having access to safe drinking water. The purpose of this guide is to assist owners/operators of small non-expanding community Group A water systems to meet the requirements of state and federal drinking water laws, and ultimately to protect the health of their customers.

Much of this guide will be useful on a day-to-day basis. The guide can be used as a filing system for system personnel. Several water systems who have already used this guide tell us that it can serve many purposes including providing:

- 1) a central location for numerous water system records and system policies,
- 2) a process to evaluate present and future system deficiencies and improvements necessary for continued water system operation, and
- 3) a list of operation and maintenance duties that can be reviewed, used and improved as necessary by existing and future water system personnel so they may effectively manage and operate the water system.

This guide is printed on three-hole punched paper so system personnel can update and keep their guide in a binder for reference at their work location.

In addition to serving as a central filing system, by completing this guide, systems will also satisfy the Small Water System Management Program requirement in Washington Administrative Code (WAC) 246-290-105 and the capacity requirement for water systems mandated in the federal Safe Drinking Water Act.

#### How to Use this Guide

Existing water systems not intending to expand either their service area or approved number of connections are required to develop a Small Water System Management Program (SWSMP) (WAC 246-290-105). This guide, that includes 18 technical, managerial and financial elements, is intended to assist in the development of SWSMPs.

[NOTE: New systems or systems intending to install additions, extensions or changes to existing source, transmission, storage or distribution facilities, that will enable an increase in service area and/or number of approved connections, are required to develop and submit a more comprehensive Water System Plan for review and approval. If your system is intending to expand, please contact your drinking water program regional office (listed on the following page) for more information about this requirement.]

This guide contains a description of content and a blank form for each of the 18 elements. Specific instructions are provided for each element on how to complete the form. Some elements can be completed quickly (e.g., fill in information that should be readily available or attach documents you should have in your files). Other elements may take more effort (e.g., if one does not exist, create a service area and facility map or develop a cross connection control program).

Working through this complete guide may appear challenging at first, but from the perspective of assuring effective long term management of your system, each element is important. To help you prioritize your efforts, please focus on the first five elements of this guide first. [These elements primarily focus on accurate record keeping and water quality monitoring/reporting. They are absolutely essential and need your immediate attention.] Once these are completed, continue to work through the guide and develop the other technical, managerial, and financial elements.

A "To Do" list is located on page 6 of this guide. This list will help identify and keep track of follow-up assignments to complete various elements.

The Department of Health Drinking Water Program (DOH) may request that you submit your SWSMP for review for a variety of reasons including, but not limited to:

- 1) lack of compliance with drinking water regulations,
- 2) concerns raised in a sanitary survey,
- 3) a change of ownership or a proposed change in ownership, or
- 4) as part of the Drinking Water State Revolving Fund (SRF) application.

You should complete and revise the elements as necessary to maintain current information. If you need to update any elements/forms, you can request additional element/forms, or the entire guide from DOH on a 3.5" diskette.

## How to Use this Guide(continued)

DOH is working with technical assistance providers in the state to help small water systems in completing SWSMPs. If you need help completing this guide, contact one of the technical assistance providers identified below. For other drinking water questions, you may call DOH at the numbers provided. There is a list of additional reference documents at the end of this guide on page R-1.

#### **Technical Assistance Providers**

Rural Community Assistance Corporation 4305 Lacey Blvd. SE Lacey, WA 98503 360/493-2260 Evergreen Rural Water of Washington 510 N. Pine St.
Ellensburg, WA 98926 509/962-6326 1/800/272-5981

#### Washington State Department of Health Division of Drinking Water

Headquarters New Market Center, Building 3 P.O. Box 47822 Olympia, WA 98504-7822 800/521-0323

Eastern Regional Office 1500 W. 4th Ave., Suite 305 Spokane, WA 99204 509/456-3115

(Adams, Asotin, Benton, Chelan, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman and Yakima counties) Northwest Regional Office 20435 72nd Ave S, Suite 200 Kent, WA 98032 253/395-6750 (Island, King, Pierce, San Juan, Skagit, Snohomish and Whatcom counties)

Southwest Regional Office P.O. Box 47823 Olympia, WA 98504-7823 360/664-0768

(Clallam, Cowlitz, Clark, Grays Harbor, Jefferson, Kitsap, Lewis, Mason, Pacific, Skamania, Thurston and Wahkiakum counties)

## **SWSMP Element Summary Sheet**

SWSMP Element Number and Title	Objective/Content
1) Water Facilities Inventory	Provides information about the water system (e.g., source capacity, number of connections and population served, etc.).
2) Water Quality Monitoring	Identifies the type, frequency and location of baseline water quality
Program	monitoring required for each existing, permanent and seasonal
	source and distribution system.
3) Consumer Confidence Report	Creates an annual educational water quality report, for distribution
	to your customers, which summarizes monitoring results.
4) Preparing for Your Sanitary	Identifies things a system can perform to prepare for sanitary
Survey	surveys.
5) Annual Operating Permit	Provides a compliance status report to system to correct any
	identified problems.
6) Cross-Connection Control	Documents cross-connection control program efforts to protect
Program	system from possible contamination.
7) Emergency Response Plan	Contains phone numbers of parties to contact in case of a system
	emergency.
8) Service Area and Facility Map	Contains service area boundaries and lists major system
	components.
9) Operation and Maintenance	Lists system personnel information (name, title, phone #) and
Program	identifies functions, frequency (e.g., weekly, monthly), and location
	of component maintenance.
10) Wellhead Protection Program	Summarizes the system's wellhead protection program.
11) Water Right Documentation	Lists the right (Permit, Certificate, or Claim) that includes the
2	number of acre-feet and gallons per minute allowed to be
	withdrawn.
12) Record of Source Water Pumped	Charts the amount of water pumped from system sources.
13) Water Usage	Charts the number of system users, the average consumption per
	user, and the estimate of total system usage.
14) Water Conservation Program	Summarizes the system's conservation efforts that promote the
	wise use of water.
15) Component Inventory and	Verifies component approval status. Inventories system
Assessment	components. Identifies possible system improvements in the next
	six years.
16) List of System Improvements	Identifies the year, cost, and financing method for anticipated
	system improvements.
17) Budget	Includes revenues, expenses and capital improvement financing.
18) System Management	Documents the system's management practices including the
	decision making process.





1. SYSTEM ID NO.

AB023 G

# WATER FACILITIES INVENTORY (WFI) FORM Quarter 0 Updaied; 03/08/2005

Printed: 03/31/2005

WFI Printed For: On-Demand Submission Reason New System

ONE FORM PER SYSTEM

RETURN TO: Southwest Regional Office, PO Box 47823, Olympia, WA, 98504 New Water System 5. TYPE 4. GROUP 2. SYSTEM NAME 3. COUNTY LACKAMAS ELEMENTARY SCHOOL WS THURSTON NTNC

6. PRIMARY CONTACT NAME & MAILING ADDRESS

ERLING BIRKLAND [FACILITIES DIRECTOR]

PO BOX 476 YELM, WA 98597 YELM SCHOOL DISTRICT 2 **ERLING BIRKLAND** PO BOX 476 YELM, WA 98597-0476

7. OWNER NAME & MAILING ADDRESS

TITLE: FACILITIES DIRECTOR

8. Owner Number 007924

STRUET ADDRESS IF DIFFERENT FROM ABOVE

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

CHY

STATE

ZIP

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN

ADDRESS 404 YELM AVE E

CITY YELM STATE WA ZIP 98597-0476

9. 24 HOUR PHIMARY CONTACT INFORMATION 10. OWNER CONTACT INFORMATION Primary Contact Daytine Phone: Owner Daytime Phone: (360) 458-6128 (360) 458-6128 Primary Contact Mobile/Cell Phone: Owner Mobile/Call Phone: (360) 239-8295 (360) 239-8295 Primary Contact Evening Phone Owner Evanling Phone: (360) 971-0980 (360) 971-0980 E-mail: ebirkland@yeswednet.edu Fax: Fax: (360) 458-6434 L-mail:

WAC 246-290-420(9) requires that water systems provide 24-hour contact information for emergencies.

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Department of Health Copy

WATER FACILITIES INVENTORY (WFI) FORM - Continued

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32. REGULAR NON-	RESIDENTIAL USERS	. IAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	, oct	NOV	DEC
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36. I certify that th	e information stated on this	WFI form is	s correc	t to the l	pest of r	ny know	ledge.						
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### Element 2 - Water Quality Monitoring Program

#### Purpose

To identify the type, frequency and location of baseline water quality monitoring (testing) required by regulations.

Background

The drinking water regulations set water quality standards for public water supplies (MCLs-maximum contaminant levels). They also establish monitoring and public notification requirements for public water systems. Monitoring has 3 levels of activity, which are:

- 1) initial monitoring,
- 2) baseline monitoring, and
- 3) follow-up monitoring.

Initial monitoring applies to new source development and/or new groups of contaminants and is in effect for a short period of time. Baseline monitoring is routine monitoring assigned to a source/system over a long period based upon results of the initial monitoring. Finally, follow-up monitoring reflects an increase in monitoring activity from the baseline because chemicals or contaminants were detected in the water. Whenever a detection is above an identified trigger and/or MCL, the assigned monitoring frequency shifts from the baseline schedule to the appropriate follow-up monitoring schedule.

Element 2 identifies "core" monitoring requirements for existing ground water sources (permanent and seasonal wells, wellfields, and springs). WAC 246-290-300 is the section of the state regulations that outline the water quality monitoring requirements. Each water system is required to develop and carry out a schedule of required monitoring. Systems are not generally required to complete monitoring for purchased, intertie or emergency sources. Water systems are expected to collect the appropriate samples and send them to a DOH certified laboratory for analysis, along with a request for the laboratory to send a copy of the analysis to both the water system and DOH.

For each test conducted, the laboratory report should include:

- 1) results of the analysis for each of the required compounds, and
- 2) a list of trigger levels and MCLs for each compound analyzed.

If your test results exceed the "trigger" levels, you will be required to begin a follow-up monitoring program (a program with an increase in the number of samples required). If your test results exceed the MCL, you will be required to:

- A) start a follow-up monitoring program,
- B) satisfy public notification requirements, and
- C) notify DOH and, if appropriate, take steps to correct the problem.

The chart below includes the type of contaminants required to be tested, when to sample, where to sample and if waivers are available. Waivers are the mechanism that allows DOH to reduce monitoring requirements, for selective contaminants, to less than the baseline schedule. Waivers are granted by DOH on a source-specific basis as well as on a state-wide basis where the risk of contamination has been determined to be low.

Contaminant	When to sample	Where to sample	Waiver?
Total Coliform	Number of samples required in WAC 246-290-300. This	From representative points throughout	No
Bacteria	monthly requirement to be shown in system's Coliform	distribution systems as indicated in the	
(COLI)	Monitoring Plan. (Refer to the guidance document, a fill-	Coliform Monitoring Plan.	
	in-the-blank document, for assistance in completing a		
	Coliform Monitoring Plan.)		Lancon Company
Nitrate	Baseline: 1 sample every year * Follow-up: 1 sample	From each active permanent & seasonal	No
(NIT)	every 3 months after a detection above the trigger of	source after treatment and prior to	
	5.0 mg/l	entering the distribution system.	
	*note: nitrate is included as a standard part of a		
	complete inorganic chemical analysis		
Inorganic	Baseline (for GW sources): 1 sample every 3 years.	From each active permanent & seasonal	Yes
Chemicals	Follow- up: 1sample every 3 months after a chemical	source after treatment and prior to	
(IOC)	detection above a trigger value.	entering the distribution system.	
Volatile Organic	Baseline (for GW sources): 1 sample every 3 years.	From each active permanent & seasonal	Yes
Chemicals	Follow-up: 1 sample every 3 months after a detection of	source after treatment and prior to	
(VOC)	any compound in excess of the trigger of 0.5 ug/l	entering the distribution system.	
Synthetic	Baseline (for systems with a populations < 3,300)	From each active permanent & seasonal	Yes
Organic	1 set of samples every 3 years.*	source after treatment and prior to	
Chemicals	Follow-up: 1 sample every 3 months for any individual	entering the distribution system.	
(SOC)	test method that showed a detection above a trigger.		
	*note: a standard set of SOC samples includes test		
	methods: 525.2, 515.1, & 531.1.		
Lead & Copper	This is an on-going monitoring program. Sampling	Samples taken from the distribution	No
(LCR)	requirements may change depending on the findings of	system at targeted in-home taps.	
, ,	previous monitoring. Contact your DOH region for		
	current status and requirements.		
Radionuclides	Baseline: One sample every 4 years. Contact your DOH	From each active permanent & seasonal	No
(RAD)	regional office for current status of this requirement.	source after treatment and prior to	
,		entering the distribution system.	

Each fall, DOH will send each system a Water Quality Monitoring Report that identifies their core water quality monitoring requirements for the next calendar year. The purpose is to provide a simple reminder of up-coming water quality sampling requirements. The requirements found in the report will reflect the current system status based upon the regulatory requirements and your monitoring history. As waivers are applied for and granted, the listed monitoring requirements will be edited to reflect those changes. If your monitoring requirements change as a result of the detection of regulated compounds above their trigger values (moving from baseline monitoring to follow-up), DOH will update the Water Quality Monitoring Report for the next year. You must adjust your sampling schedule to reflect these types of changes.

It is very important that you keep a copy of all laboratory sample results. This will help you document that the required monitoring has been completed. You can obtain a list of certified laboratories by calling 206/361-2822 or from the DOH web page www.doh.wa.gov/ehp/dw/public.htm.

#### Instructions For Completing Form 2 (form is below)

- Step 1. Attach your Water Quality Monitoring Report (sent by DOH) that contains the baseline testing frequency for each of the contaminants for this calendar year.
- Step 2. Transfer testing dates for the various contaminants into your system's working documents (e.g., budget, work schedule, contract with lab, etc.).
- Step 3. Remember to revise you testing schedule if any additional follow-up testing is required or if your system has received a waiver for a specific monitoring requirement.
- Step 4. Attach a copy of your Coliform Monitoring Plan (Ask DOH for a copy of the document "*Preparation of a COLIFORM MONITORING PLAN*", if you have not completed your Coliform Monitoring Plan).

#### Form 2 - Water Quality Monitoring Program

Completed	Task Completion	Date
	Attach a copy of your Water Quality Monitoring Report	Will include when school is in use and report is given.
X	Transfer testing dates to other system documents	April 8th, 2005
	Agreement to revise testing schedule upon new follow-up testing requirements or waivers	
X	Attach copy of Coliform Monitoring Plan	April 8th, 2005

Testing:

Water Quality sampling will be performed as shown on page 2-3 of this section, or as shown on the Water Quality Monitoring Report (WQMR) by Department of Health, Southwest Division of Drinking Water Division that will be provided after well becomes active.

Bacteriological:

Tested 1/21/05. Coliform monitoring plan attached.

Nitrate:

Tested 7/22/04

IOC:

Tested 7/22/04

VOC:

Tested 8/2/04

SOC:

A susceptibility survey has been prepared to determine waiver availability.

Radionuclides:

Sampling as required by DOH in the Water Quality Monitoring Report (WQMR)

Lead and Copper:

Initial lead and copper sampling should be performed beginning 4 months after the building completion. A maximum of 250 people per day is anticipated. Sampling requirements are: 10 samples for each of two consecutive 6 month periods. The samples need to be taken at cold water faucets. If 10 sample locations cannot be found, then sites may be sampled 2 days in a row to make up the required 10 samples.

#### Asbestos:

The Department of Health will send a request for waiver form.

# Thurston County Environmental Health 2000 Lakeridge Dr. S.W. Olympia, WA 98502 786-5465

# WATER-BACTERIOLOGICAL ANALYSIS SAMPLE COLLECTION; READ INSTRUCTIONS THOROUGHLY

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E BURGER	#1 h / /)	1	NA	· Ritt	MNID
SOURCE TYPE G GF	ROUND WAT	TER UNDER S	URFAC	E INFLUE	NCE
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#### INORGANIC CHEMICALS (IOCS) REPORT

MANTER MANAGEMENT

1815 801h 51. H. (253) 531-3121

1004X

MO-12-L

Aug, 11 2004 04:51PM P3
SPEDACE
TRIE (NSTRUCTIONS

DOH Source No:

MIN

: 'ON BNOHA

Date Collected:

System Name: doc Konnes

FROM: Print Plainly

DEE HEVAL SEN

Lab/Sample No:

System ID No:



1515 80th St. E. Tacoma, WA 98404 (253) 531-3121

#### VOLATILE ORGANIC CHEMICALS (VOC's) ANALYSIS REPORT EPA TEST METHOD - 524.2

System ID No.: N/A	System Name: Lackamas School					
Lab/Sample No.: 08970807		Date Collected: 08/02/04			DOH Source No.: N/A	
Multiple Source Nos.: N/A			Sample Type: B Sam		Sample Purpose: I	
Date Received: 08/02/04	Date Rep	orted: 08/10/04		Su	pervisor:	WMB_
	Date Ana	alyzed: 08/09/04	l İ	Ar	nalyst: LH	IL .
County: Thurston				Group: F	Private	
Sample Location: Storage Tank						
Send To: Yelm Community Schools				Re	emarks:	
P.O.Box 476; Yelm, WA 98597						

DOH#	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	EXCEEDS	
		EPA REGULATED					Trigger?	MCL?
45	Vinyl Chloride	ND	ug/L	0.5	0.5	2	NO	NO
46	1,1 - Dichloroethylene	ND	ug/L	0.5	0.5	7	NO	NO
47	1,1,1 - Trichloroethane	ND	ug/L	0.5	0.5	200	NO	NO
48	Carbon Tetrachloride	ND	ug/L	0.5	0.5	5	NO	NO
49	Benzene	ND	ug/L	0.5	0.5	5	NO	NO
50	1,2 - Dichloroethane	ND	ug/L	0.5	0.5	5	NO	NO
51	Trichloroethylene	ND	ug/L	0.5	0.5	5	NO	NO
52	1,4 - Dichlorobenzene	ND	ug/L	0.5	0.5	75	NO	NO
56	Dichloromethane	ND	ug/L	0.5	0.5	5	NO	NO
57	trans-1,2 - Dichloroethylene	ND	ug/L	0.5	0.5	100	NO	NO
60	cis-1,2 - Dichloroethylene	ND	ug/L	0.5	0.5	70	NO	NO
63	1,2 - Dichloropropane	ND	ug/L	0.5	0.5	5	NO	NO
66	Toluene	ND	ug/L	0.5	0.5	1000	NO	NO
67	1,1,2 - Trichloroethane	ND	ug/L	0.5	0.5	5	NO	NO
68	Tetrachloroethylene	ND	ug/L	0.5	0.5	5	NO	МО
71	Chlorobenzene	ND	ug/L	0.5	0.5	100	NO	NO
73	Ethylbenzene	ND	ug/L	0.5	0.5	700	NO	NO
76	Styrene	ND	ug/L	0.5	0.5	100	NO	NO
84	1,2 - Dichlorobenzene	ND	ug/L	0.5	0.5	600	NO	NO
95	1,2,4 - Trichlorobenzene	ND	ug/L	0.5	0.5	70	NO	NO
160	Total Xylenes	ND	ug/L	0.5	0.5	10000	NO	NO
74	m/p Xylenes (MCL for Total)	ND	ug/L	0.5	0.5		NO	
75	o - Xylene (MCL for Total)	ND	ug/L	0.5	0.5		NO	
		EPA UNREGULATED		visión.			A	
27	Chloroform	ND	ug/L	0.5	0.5		NO	
28	Bromodichloromethane	ND	ug/L	0.5	0.5		NO	
29	Chlorodibromomethane	ND	ug/L	0.5	0.5		NO	
30	Bromoform	ND	ug/L	0.5	0.5		NO	
53	Chloromethane	ND	ug/L	0.5	0.5		NO	
54	Bromomethane	ND	ug/L	0.5	0.5		NO	
55	Chloroethane	ND	ug/L	0.5	0.5		NO	***************************************

Water Management Laboratories, Inc. 1515 80th St. E. Tacoma, WA 98404 (253) 531-3121

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	EXCEE	os
		PA UNREGULATED (Continu	ed)	2000	aki je	. ,	Trigger?	MCL?
58	1,1 - Dichloroethane	ND	ug/L	0.5	0.5		NO	
59	2,2 - Dichloropropane	ND	ug/L	0.5	0.5		NO	
62	1,1 - Dichloropropene	ND	ug/L	0.5	0.5		NO	
64	Dibromomethane	ND	ug/L	0.5	0.5		NO	
70	1,3 - Dichloropropane	ND	ug/L	0.5	0.5		NO	
72	1,1,1,2 - Tetrachiroroethane	ND	ug/L	0.5	0.5	1611-161-1-1611-1-1611-1611-1611-1611-	NO	
78	Bromobenzene	ND	ug/L	0.5	0.5		NO	
79	1,2,3 - Trichloropropane	ND	ug/L	0.5	0.5		NO	
80	1,1,2,2 - Tetrachloroethane	ND	ug/L	0.5	0.5		NO	
81	o - Chlorotoluene	ND	ug/L	0.5	0.5		NO	
82	p - Chlorotoluene	ND	ug/L	0.5	0.5		NO	
83	m - Dichlorobenzene	ND	ug/L	0.5	0.5		NO	
154	1,3 - Dichloropropene	ND	ug/L	0.5	0.5		NO	
		STATE UNREGULATED		77	•			
65	cis-1,3 - Dichloropropene	ND	ug/L	0.5	0.5		NO	
69	trans-1,3 - Dichloropropene	ND	ug/L	0.5	0.5		NO	
85	Fluorotrichloromethane	ND	ug/L	0.5	0.5		NO	
86	Bromochloromethane	ND	ug/L	0.5	0.5		NO	
87	Isopropylbenzene	ND	ug/L	0.5	0.5		NO	
88	n - Propylbenzene	ND	ug/L	0.5	0.5		NO	
89	1,3,5 - Trimethylbenzene	ND	ug/L	0.5	0.5		NO	
90	t - Butylbenzene	ND	ug/L	0.5	0.5		NO	
91	1,2,4 - Trimethylbenzene	ND	ug/L	0.5	0.5		NO	
92	s - Butylbenzene	ND	ug/L	0.5	0.5		NO	
93	p - Isopropyltoluene	ND	ug/L	0.5	0.5		NO	
94	n - Butylbenzene	ND	ug/L	0.5	0.5		NO	
96	Napthalene	ND	ug/L	0.5	0.5		NO	
97	Hexachlorobutadiene	ND	ug/L	0.5	0.5		NO	
98	1,2,3 - Trichlorobenzene	ND	ug/L	0.5	0.5		NO	
102	EDB (Confirm by 504.1)	ND	ug/L	0.5	0.5		NO	
103	DBCP (Confirm by 504.1)	ND	ug/L	0.5	0.5		NO	
162	Dichlorodifluoromethane	ND	ug/L	0.5	0.5		NO	
N/A	Nitrobenzene	ND	ug/L					
N/A	MTBE	ND	ug/L	0.5	0.5		NO	

#### NOTES:

SRL (State Reporting Level): Indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water response level. Systems with compounds detected at concentrations in excess of this level are required to take additional samples. Contact your regional DOH office for further information.

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): In the RESULTS column indicates this compound was not included in the current analysis.

ND (Not Detected): In the RESULTS column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< : Indicates less than.

#### Comments:

A maximum contaminant level of 80 ug/L total Trihalomethanes (Compounds 27-30) is allowed.

Method 524: VOC's

File: Orig. & First Copy - Dept of Ecology Second Copy - Owner; Third Copy - Driller

WATER WELL REPORT State of Washington Start Card No. W108359 Unique Well ID AEAL64

SW 1/4 SW 1/4 Sec 24 T 15 N R 2 B

Water Right Permit No.

| Based on form EGL 050-1-20 (2/93)\*\*f-1329- by Spend Systems |

(1) ONNER; NAME DILLIARD JENSEN

Temperature of vator

(2) LOCATION OF WELL; COUNTY THURSTON

Address 19207 HEAT RD SE YELM WA 98597

Page 1 of

(2a) STREET ADDRESS OF WELL (or nowrest address) 16240 SE BALD HILLS ED YELM WA

Was chemical analysis made? NO

PROPOSED USE: DOMESTIC (10) WELL LOG OF DECOMMISSIONING PROCEDURE DESCRIPTION Type of works NEW WELL Mathod: ROTARY Material From | To (5) DIMENSIONS; Diameter of well 6 inches. TOP SOIL AND GRAVEL 0 1 fest. Depth of completed wall 254 ft. | BROWN CLAY, GRAVELS, COBBLES 1 1 6 BROWN CLAY, GRAVELS 6 38 (6) CONSTRUCTION DETAILS: GREY SANDY CLAY, GRAVELS 38 91 \* Diam. from 0 ft. to 250.5 ft. Casing instld: 6 GREY SILTY SANDY CLAY 91 109 " Diam. from Helded X ft. to ft. GREY STICKY CLAY 109 250 Liner P Diam. from ft. to ft. GREY BILTY FINE SAND, WATER 250 254 Threadad \_\_ Perforations: Yes \_ No X Type of perforator used Size of perforations in. in. by perforations from ft. to in. perforations from ft. to in. perforations from ft. to in. Screens: Yes X No \_ Manufacturer's Name JOHNSON Type STAINLESS Modal No slot size 8 from 254.4 ft. to 250.5 ft. | S ₹ }> Slot size from ft. to ft. 1 Gravel packed: Yea \_ No X Size of gravel Gravel placed from ft. to £t. 4 Surface seal: Yes X No \_ To what depth? 23 ft. | Material used in soal HENTOWITE 9 Did any strata contain unusable water? Yas No X Type of water? Depth of strata Method of scaling strata off (7) PUMP: Manufacturer's Mamo H.P. 0 Typa WATER LEVELS: Surface eley above mean sex level Static level 133.1 ft, below top of well Date 08/14/98 Artesian pressure lbe. por sq. in. Artesian pressure is controlled by (9) WELL TESTS: Pump test made? \_\_\_ By whom? Work Started 08/10/98 Completed 08/14/98 Yield 0 gal./min. with ft, drawdown after hra! Yield 0 gal./min. with ft. drawdown after hra | WELL CONSTRUCTOR CERTIFICATION: Yiold 0 gal-/min. with ft. drawdown after I constructed and/or accept responsibility for construction hral this well, and its compliance with all Washington well cons Recovery data: WEF. LV1. Time Wtr. Lv1. ruction standards. Materials used and the information repor Time WEE, LVI. above are true to my best knowledge and belief. Namo RICHARDSON WELL DRILLING Address P.O. Box 9427 Tacona NA 98444 (Well Driller) Date of test (Signed) Bedl gal/min with Bailer test 0 ft. drawdown after hel Lic. No 2017 Airtopt B gal/min with stem set at 248 ft. for 2 hra 1 | Contractor's Registration No. RICHAW+3310B Date 09/0: Artegian flow D gal/min Date

### Coliform Monitoring Plan for Lackamas Elementary School

A. System Information

Water System Name	County	System I.D.			
Lackamas Elementary School	Thurston	AB023 G			
System Narrative	Source: Well 1	254' deep (So1)			
	Treatment: Non	ie			
	Distribution: single pressure zone. Water is				
	pumped from the well to storage tanks. 4"				
	D.I. pipe connects the storage tanks to				
	the other buildir	ngs.			
	Storage: Two 3000 gallon polyethylene ta Residential Pop: One single family rental.				
	l Population: Max. 250				
Number of Routine Samples Required	Number of Sar	nple Sites Needed to			
Monthly by Regulation: 1	Represent the	Distribution System: 1			

**B. Routine and Repeat Sample Locations:** 

B. Routine and Repeat Sample Location	ns:
X1 Women's Lavatory Main Building	Location of Repeat Sample Sites
	1-1 Women's Lavatory Main Building
	1-2 Women's Lavatory Gym
	1-3 Men's Lavatory Main Building
	1-4 Men's Lavatory Gym
	1-5 Hose Bib in Domestic Booster Station
X2 Women's Lavatory Gym	Location of Repeat Sample Sites
	2-1 Women's Lavatory Main Building
	2-2 Women's Lavatory Gym
9	2-3 Men's Lavatory Main Building
	2-4 Men's Lavatory Gym
, <sup>*</sup> 6.	2-5 Hose Bib in Domestic Booster Station
X3 Men's Lavatory Main Building	Location of Repeat Sample Sites
	3-1 Women's Lavatory Main Building
	3-2 Women's Lavatory Gym
	3-3 Men's Lavatory Main Building
	3-4 Men's Lavatory Gym
	3-5 Hose Bib in Domestic Booster Station
X4 Men's Lavatory Gym	Location of Repeat Sample Sites
×	4-1 Women's Lavatory Main Building
e e	4-2 Women's Lavatory Gym
	4-3 Men's Lavatory Main Building
	4-4 Men's Lavatory Gym
	4-5 Hose Bib in Domestic Booster Station
X5 Woman's Lavatory Kindergarten Port	
	5-1 Woman's Lavatory Kindergarten Port.
	5-2 Women's Lavatory Gym
	5-3 Men's Lavatory Main Building
	5-4 Men's Lavatory Gym
	5-5 Hose Bib in Domestic Booster Station
<b>X6</b> Men's Lavatory Kindergarten Port.	Location of Repeat Sample Sites
	6-1 Men's Lavatory Kindergarten Port.
	6-2 Women's Lavatory Gym
	6-3 Men's Lavatory Main Building
	6-4 Men's Lavatory Gym
	6-5 Hose Bib in Domestic Booster Station

C. Routine Sample Rotation Schedule

MONTH	ROUTINE SITE	MONTH	ROUTINE SITE
JAN	X1	JUL	X1
FEB	X2	AUG	X2
MAR	X3	SEP	X3
APR	X4	OCT	X4
MAY	X5	NOV	X5
JUN	X6	DEC	X6

D. Month Following Unstisfactory Samples

The month after a coliform positive sample, five (5)
follow-up samples will be submitted, marked as "Routine" type samples.
We will collect these from the four (4) routine sample sites,
as well as from the Domestic Booster Station (X7) sample tap.
X1 Women's Lavatory Main Building
X2 Women's Lavatory Gym
X3 Men's Lavatory Main Building
X4 Men's Lavatory Gym
X7 Hose Bib in Domestic Booster Station

E. Preparation Information

System Name	Date Plan Completed	Dates Modified
Lackamas Elementary School	4/8/2005	
Name of Plan Preparer	Position:	Daytime Phone #
Jerry Morrissette	P.E.	352-9456
State Reviewer	Date of Last Review	

#### Form 3 - Consumer Confidence Report

Completed Task		Completion Date
X	Obtain a copy of the federal regulation or guidance document	April 8th, 2005
X	Gather water quality data	April 8th, 2005
X	Construct and complete your eight column data summary table	April 8th, 2005
X	Include required definitions and educational and mandatory language	April 8th, 2005
X	Include general source water and Source Water Assessment information	April 8th, 2005
X	Include customer involvement information	April 8th, 2005
<b>X</b>	Include water system phone number and EPA's hotline number	April 8th, 2005
	Send CCR to each service connection and other consumers	One year after students return
	Send CCR and a signed and dated certification form to your Division of Drinking Water Regional Office by the annual due date	One year after students return
	Put a copy of your CCR in your own files	One year after students return

## See Sample On Next Page

Testing:

Water Quality sampling will be performed as shown on page 2-3 of this section, or as shown on the Water Quality Monitoring Report (WQMR) by Department of Health, Southwest Division of Drinking Water Division that will be provided after well becomes active.

Bacteriological:

Tested 1/21/05. Coliform monitoring plan attached.

Nitrate:

Tested 7/22/04

IOC:

Tested 7/22/04

VOC:

Tested 8/2/04

SOC:

A susceptibility survey has been prepared to determine waiver availability.

Radionuclides:

Sampling as required by DOH in the Water Quality Monitoring Report (WQMR)

Lead and Copper:

Initial lead and copper sampling should be performed beginning 4 months after the building completion. A maximum of 250 people per day is anticipated. Sampling requirements are: 10 samples for each of two consecutive 6 month periods. The samples need to be taken at cold water faucets. If 10 sample locations cannot be found, then sites may be sampled 2 days in a row to make up the required 10 samples.

#### Asbestos:

The Department of Health will send a request for waiver form.



SINCE 1857

Cathy Wolfe
District One
Diane Oberquell
District Two
Robert N. Macleod
District Three

# PUBLIC HEALTH AND SOCIAL SERVICES DEPARTMENT

Sherri McDonald, RN, MPA. Director Diana T. Yu, MD, MSPH Health Officer

March 28, 2005

Doug Eklund J.W. Morrissette & Associates 1700 Cooper Point Road SW Olympia, WA 98502

Subject:

Group A Public Well Site Approval, Tax Parcel 22624440000 Project 2004 105509, Sequence 04 117875 ZM, Lackamas School,

Special Use Permit Application

Dear Mr. Eklund:

This agency has completed the Group A public well site inspection for the above referenced Lackamas School special use permit application. The well site location as shown on the attached site plan meets the requirements of WAC 246-290 and is hereby approved, PROVIDED: covenants for the 100 foot sanitary control radius and a scaled site plan is filed with the county auditor. Please note that this well is located 90 feet from the public right of way for Bald Hills Road SE. This well site approval allows for this encroachment based on demonstration of adequate geologic protection in the well log and the hydrogeologic report submitted for the special use permit. All storm water and other drainage from impervious surfaces must be directed away from the well head and outside the 100 foot sanitary control radius for the well and there may be no infiltration allowed within 100 feet of this well. If there are any changes in this proposal that will require a new well site location, a new inspection would need to be conducted and new covenants must be filed.

The next step in the water system approval process is to submit water system plans to the Washington State Department of Health (WSDOH), Office of Drinking Water. Written confirmation of water system plan approval will be required from the WSDOH prior to release of any non-residential building permits. Written confirmation of final water system approval will be required from the WSDOH prior to approval of any permits for building occupancy. Satellite management is required for all new water systems in areas where an approved Satellite Management Agency is available and a water right permit may be required from the Washington State Department of Ecology if the total withdrawal is 5,000 gallons per day or greater.

If you have any questions, please feel free to contact me at (360) 786-5743.

Sincerely,

John Ward, R.S.

Environmental Health Specialist

Thurston County Environmental Health

Attachment:

Site plan for well site location

Environmental Health Division: 2000 Lakeridge Drive SW, Olympia, Washington 98502-6045 (360) 786-5490 Fax (360) 754-4462 • TDD (360) 754-2933

www.co.thurston.wa.us/health



### Form 7 - Emergency Response Plan

	lowing manner in c	case of an emerge	ency (Check all that	apply): ice 404 Yelm Ave Ye		
			D		iiii, VVA 90397	
	Other					
nur	nbers of the system	n personnel to co		re provided the names an ergency via the following	•	
(Cł	neck all that apply)Billing			X Other List in do		_
3.	System Emergen	cy Reference L	ist	station build	ding & YCS offic	æ
	Emergency contact		Phone number(s)	Emergency contact	Phone number(s)	
	Fire/Police/Medical		911	Electrician Erling Birkland	360-458-6128	
	County emergency s	ervices	911	DOH regional engineer	360-586-5209	
	County environment		360-786-5490	DOH emergency contact After hours #	1-877-481-4901	
	Department of Ecolo		800-258-5990		360-458-6128	
	Engineering consulta	ant JWMA	360-352-9456	System operator Erling Birkland	360-458-6128	
	Electric utility	PSE	888-225-5773	11 / / / / /		
	Pump service	Erling Birkland	360-458-6128	Media contact		
	Pipe service	Erling Birkland	360-458-6128	Call Before You Dig #	800-424-5555	
	Other			Other		
	Describe what yo and attach at en			ncies happen to your sys	tem	
a) I	Power Outage _			nergemcy generator		
b)	Well Pump Fail	ure Call p	oump service co	ompany		
c)	A break in the d	istribution lines	or transmission n	nains Pipe Service	Company	
d) I	Electrical problem	ıF	Pump Service C	Company		
e)	Coliform MCL	Violations				
-	Trace problem,	correct prob	2000	t, if still in violation, o	all JWMA	
SWS	IMP-A guide for small	non-expanding con	7 - 3 amunity Group A water	r systems		

1/2000

### Element 9 - Operation and Maintenance Program

#### Purpose

To identify maintenance duties to operate and maintain the system in compliance with drinking water regulations.

#### Background

WAC 246-290-105 requires water systems to develop an operation and maintenance program. Having a preventive maintenance schedule will help system personnel regularly perform inspections, repairs, cleanings and other maintenance duties. It will also document what work personnel have already completed in case the system needs additional repairs or replacements in the future. The schedule will also help any new employees responsible for maintenance duties.

#### Instructions For Completing Form 9 (form is below)

- Step 1. Fill in the information about the system personnel (name, title/operator certification level, , phone number)
- Step 2. Have the person responsible for doing the maintenance on the system write down the current maintenance functions (e.g., check well and reservoir seals & screens, calibration of chemical injection systems, etc.) and how frequently (weekly, monthly, quarterly etc.) they perform the functions.
- Step 3. Indicate normal settings, positions and/or readings for pump controls, electrical switches, valves, gauges, etc.
- Step 4. Develop a list of supplies that you will need to periodically order and include the name and phone number of the person to contact for the supplies.
- Step 5. You may want to have a technical assistance provider check this list for completeness. Parties conducting sanitary surveys will also review the system's maintenance schedule.

**Note:** If this information already exists in another form/document (e.g., operations plan), reference and attach that form/document rather than fill in this element.

# Form 9 - Operation and Maintenance Program System Personnel Information

Name	Title/Certification Level	Phone number(Day/Night)
Erling Birkland	Director of Facilities	(360) 458-6128
	WDM 1	

#### Form 9 - Operation and Maintenance Program (continued)

#### **Maintenance Schedule (Routine and Preventative)**

Function	Frequency
Schedule items to check and adjust (for example adjusting flow control valves, reading flow meters, checking water levels in storage tank and reservoirs, reading pressure gauges and checking volumes of chemicals used)	List the frequency that you complete the functions (day, week, month, semiannual, annual, etc.)
BACTERIOLOGICAL TEST	MONTHLY
CHECK PRESSURE CONTROL SETTING	MONTHLY
CHECK WELL SEAL AND SANITARY CONTROL AREA	MONTHLY
CHECK VISUALLY FOR LEAKS (LINES AND VALVES)	MONTHLY
CHECK STORAGE TANKS MINIMUM LEVELS/ALARM	MONTHLY
REVIEW AND UPDATE SWSMP (JWMA)	YEARLY OR AS REVISED

Indicate normal settings, positions and/or readings for pump controls, electrical switches, valves, gauges, etc.

#### Type of switch/valve/control

#### **Normal settings**

WELL PUMP CONTROL PANEL	AUTO
BOOSTER PUMP B&C CONTROL PANEL	B-AUTO; C-AUTO
BOOSTER PUMP A CONTROL PANEL	CONSTANT PRESSURE; 70 PSI
INLET	LAG 1 AUTO; LAG 2 AUTO
TANKS/OUTLET VALVES	ALL OPEN
BOOSTER PUMPS SUCTION/DISCHARGE VALVES	OPEN
PRESSURE TANK SERVICE VALVE	OPEN

Develop a list of supplies you periodically order and include the name and phone number of the person to contact for the work or supplies.

#### Type of supplies Name/List of contractors/suppliers

(#)

NA	
	( )
	( )

#### Form 14 - Water Conservation Program

Confirm that you have included, or have committed to develop, the following required components by checking the boxes or filling in the requested information:

Comple	eted C	completion	n Date
X	<u>4</u>	/8/05	To adopt a conservation goal to promote wise and efficient use of water (in system rules, bylaws, etc.)
			ed any other conservation goals (e.g., reduce unaccounted for water, s reduction, peak seasonal demand) Please list these additional goals.
X X	4/3	8/05	To undertake the following conservation education measures:  (Check one or more)  Distribute DOH conservation brochures (available free from DOH-call (800) 521-0323)  Distribute conservation oriented news articles Insert conservation information in customer bills Other
X	4/8	3/05	To start or continue to record monthly source meter data (Form 12) in order to evaluate water system usage and effectiveness of the conservation program.

WHEN THE SCHOOL IS OPEN THE WATER CONSERVATION PROGRAM WILL BE IMPLEMENTED AND MONTHLY WATER USAGE WILL BE RECORDED AS DESCRIBED IN ELEMENT 12

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SWSMP-A guide for small non-expanding community Group A water systems 1/2000

### Element 15 - Component Inventory and Assessment

#### Purpose

To assess approval status of system facilities and to determine the timing for future improvements.

#### Background

WAC 246-290-110 and 120 require approval for project reports and construction documents prior to installation or construction of any system facility. WAC 246-290-105 requires water systems to conduct a component inventory and assessment. This assessment should include 1) verification that all system facilities have either an approved project report or construct document and 2) an assessment of each of the system facilities to determine if any parts require replacement in the next six years. DOH recommends that you contact a professional engineer if you have determined that you need to make an improvement. The engineer will guide you through the improvement process.

Instructions For Completing Form 15 (form is on next page)

- Step 1- Column 2- System Component Capacity and Cost- Take an inventory of the system components, indicating the physical capacity and write down the replacement cost for each system component in the space provided.
- Step 2- Column 3- System Component Approval Date- Write down the approval date for all system components and attach approval letters at end of section (These letters are in your records or in DOH files).
- Step 3- Column 5- System Component Age- Write down the age of each system component (from your records or DOH files).
- Step 4- Column 6- Life Expectancy- Compare each component's age (Column 5) to the life expectancy provided in the chart (Column 4). Determine if any system component will have to be replaced in the next 6 years. Circle (YES) or (NO) for each system component evaluated. If you circled YES, write down the year you think you will make the improvement in the space provided.

**Note:** Just because some components are approaching or may even be older than the life expectancy listed, it does not necessarily mean you will have to replace them in the near future. On the other hand, a relatively new component might be causing trouble and you may need to replace it even if it is not near its life expectancy.

The cost figures on the next page are only meant to give you a general idea of the cost of those components. This is especially important for the components that will have to be replaced in the next six years. DOH must stress that the figures provided are for planning purposes only. The actual cost of the work may vary greatly from the costs listed.

Additional resources: If you do not know the specifics of your system (e.g., size/capacity of storage tank), contact your DOH regional office to arrange a time to review the system files.

Form 15 - Component Inventory and Assessment

Year	0	10 Years		# of gallons 24 X \$2.00 = 48 Total \$ 48	
Yes					Pressure Tanks
Year No	NA	20 Years	8	# of valves X \$'s per valve Total \$	Reducing Valves
Yes				0	Altitude and Pressure
Yes  Year	0	50 Years		Number of gallons $6000$ X \$.75 = Total \$ 4500	Storage
Year				1	without building)
No	NA	20 Years			System (tank and pump-
Yes				5 gpd = \$500 10 gpd = \$600 15 gpd = \$700 20 gpd = \$750	Disinfection Treatment
X No Year	0	7 Years		sophistication- check your cost of original controls \$2,500 \$5,000 \$10,000 \$20,000 Total \$ 10,000	(including elec.service, breaker panels, etc.)
Yes				The cost of component controls vary depending on level of	Control Components
Year_	0	25 Years		# of meters 1 X \$s per meter 150 = Total \$150	
Yes				1" = \$150 2" = \$400 3" = \$600 4" = \$1000 6" = \$2000	Source Meter
Year				Other 3/4HP = Total \$ 750	
X No	0	10 Years		$10 \text{ hp} = \$4000 \ 20 \text{ hp} = \$7000$	(hp=horse power)
Ves				1  hp = \$1000  3  hp = \$1500  5  hp = \$2000  7  hp = \$2500	Well Pump
Year	O.J ILANO	20 1 6413	072070	Well Size(\$) 30 X 254 Well Depth = Total \$ 7620	8, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,
Yes	65 VEADS	30 V	3//20/2	Other /ft $8 - $40/11 10 - $30/11 12 = $00/11$	sealing screen etc.)
			letters)	CI J	Wall (Acilling acid
6 Years?		Expectancy	Date (attach	e e	
Replace in Next	Age		Approval	Size or Capacity and Estimated Cost	Component
Column 6	Column 5	Column 4	Column 3	Column 2	Column 1

15-3 SWSMP-A guide for small non-expanding community Group A water systems 1/2000

Form 15 - Component Inventory and Assessment (continued)

														_								_			_
1. The Tot	computers, equipment)	Improvements (e.g.,	Non-facility	Replacement)	Routine Meter	Assuming Annual	and Reconditioned-	Service Meters (New			$\wedge$	but no fire hydrants)	(including asphalt repair	Distribution Pipe Repair PVC		18	Booster Pumps			Pressure Tanks			Component		Column i
The Total System Replacement Cost is the amount needed to replace all of					# of meters(Annually) X \$'s per meter = Total \$	1	3/4" (rebuilt) = \$45 $3/4$ " (new) = \$90	5/8" (rebuilt) = \$30 $5/8$ " (new) = \$60	#  of ft  420  X \$'s per ft  23 =  Total \$ 9660	NOTE: All costs include \$5/ft for asphalt repair.	4"= \$23/ft 6"= \$25/ft 8"= \$30/ft 10"= \$35/ft 12"= \$40/ft	Ductile	(including asphalt repair $4" = 20/\%$ $6" = 23/\%$ $8" = 28/\%$ $10" = 33/\%$ $12" = 38/\%$	PVC	# of pumps 3 X \$'s per pump 600 = Total \$ 1800	\$1000 Other	1  hp = \$300  2  hp = \$400  3  hp = \$600  5  hp = \$800  7.5  hp = 1000    7.5  hp = 100000  7.5  hp = 100000  7.5  hp = 100000  7.5  hp = 1000000  7.5  hp = 100000000000000000000000000000000000		# of gallons X \$2.00 = Total \$	\$2.00/gallon			Size or Capacity and Estimated Cost	Commit 2	Caluma
																					letters)	Date (attach	Approval	Column 3	2 1
the components of vour water system		Years					30 Years						20 Years			10 Years			10 Years			Expectancy	Life	Column 4	2
igter existem		NA					NA						0			0			NA				Age	Column 5	2
	Year	No	Yes				No No	Yes		Year		X No	Yes		Year	X No	Yes	Year	No	Yes		6 Years?	Replace in Next	Column 6	2

Total System Replacement Cost is the amount needed to replace all of the components of your water system. Total System Replacement Cost = Add (Column 2) = \$ 34,528 x 1.25 Contingency = \$ 43,160

2. estimated without detailed data specific to water system's needs, availability of services and materials) and based on 1996 dollars. Source: Indian Health Service Construction Bid Records. Costs estimated within a planning level of accuracy (±30% and Costs may be higher in specific cases. You should adjust for future costs.

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SWSMP-A guide for small non-expanding community Group A water systems 1/2000

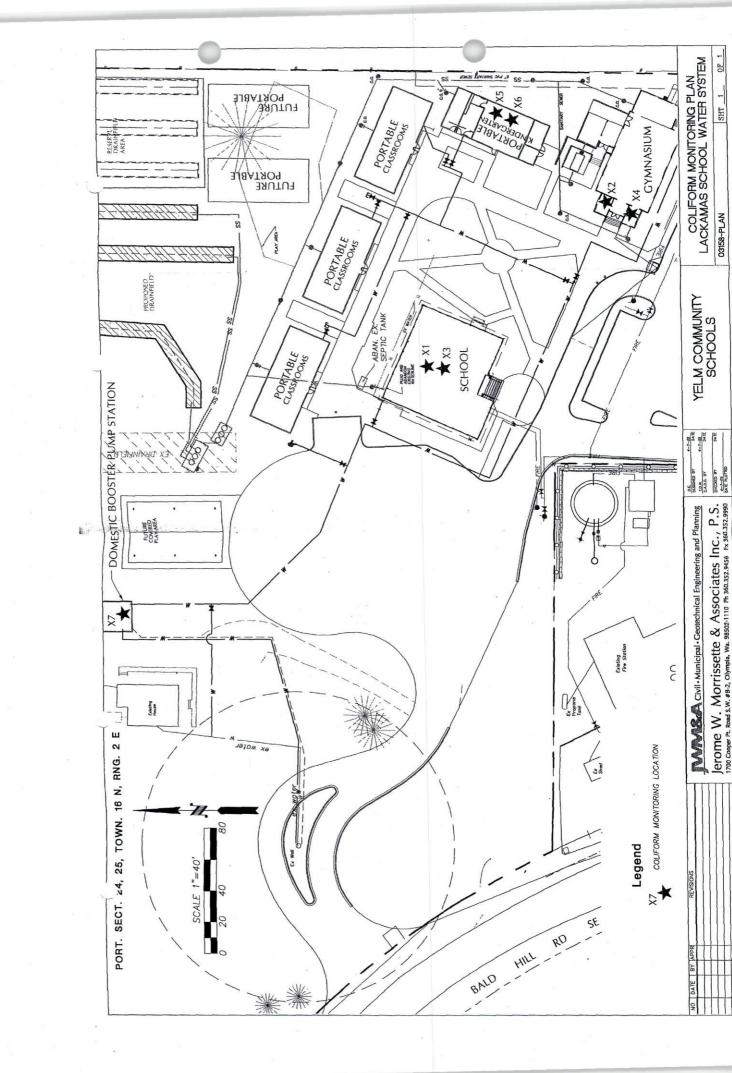
# Element 18 - System Management

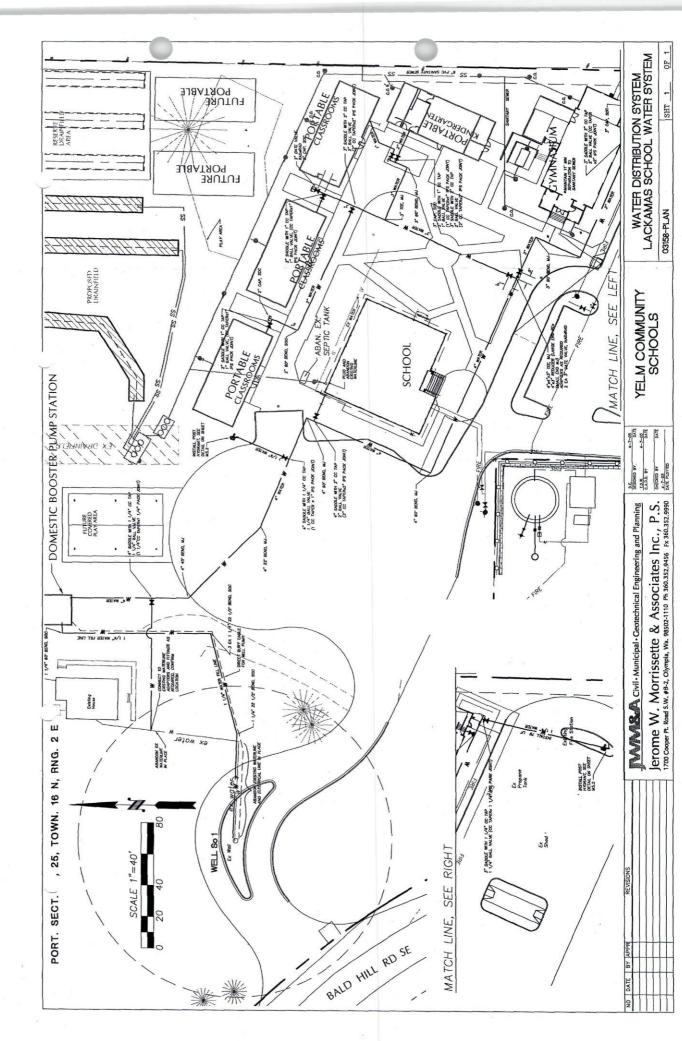
1/2000

To document current system management practices including decision-making processes.
Background WAC 246-290-105 requires water systems to identify their system management practices. This form contains several areas where you are to fill in information to describe your system's management practices. DOH may go over your responses to the questions on this form during future sanitary surveys to learn more about your system's management practices.
Instructions for Completing Form 18 (the form is below)
Step 1. Read each of the items below and fill in the information or check the appropriate boxes
Form 18- System Management
Water system name: LACKAMAS ELEMENTARY SCHOOL Date 4/8/05
1) Type of System Ownership (check all that apply) Water Association (home owner association) Local Government (Town, County, PUD, District) Corporation Single private owner Partnerships Other
Name of person/parties/association that own the system     YELM COMMUNITY SCHOOLS
3) Existence of written system rulesExistDo not exist (check one- if they exist, attach at end of guide)
4) Who makes the major decisions for your system (when to make an improvement, decide what method to finance improvements, when to allow additional connections, etc.)  X Single party ERLING BIRKLAND Group of system users  Board (# of members ) Commissioners (# of members )  Other
5) How often do those responsible for making decisions meet? MonthlyAnnuallyOther
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### Form 18- System Management (continued)

6) Are all system users notified about these meetings? X YesNo. If so, how are they notified BY MAIL ON IMPORTANT ISSUES
7) Do you mail water bills?Yes X No. If so, how often do you mail out the bills?  Monthly Every two months Other
8) How do you plan on financing future system improvements? (you can check more than one)
System user surcharges/one time fees  X OtherSCHOOL BUDGET  Don't know
9) Does the system have any paid employees?Yes _X No. If so, do you have policies regarding personnel management (salary, benefits, hiring/firing, supervision)?YesNo. If so please attach at end of guide
10) Do you have a system operator? Yes X No. If so, if you lose your operator, do you have a plan on how to get another one?
YesNo. If so, explain your process and attach at end of guide (note: if you are required to have a certified operator and your operator leaves your system's employment, you must get another certified operator to provide service immediately)
11) Do you have a process to record and respond to customer complaints?  Yes X No. If so, explain your process and attach at end of document
12) Do you have any insurance policies? Do you have any safety policies?  X YesNo. If so, attach at end of document (or reference where they can be found)  YELM COMMUNITY SCHOOLS
13) Identify the party/person responsible for conducting financial transactions (maintaining records, receiving payments, paying bills, etc.) YELM COMMUNITY SCHOOLS
14) Do you keep copies of correspondence to and from DOH and others (labs, Ecology, etc.)?  X YesNo. If so, describe how and where the correspondence is kept and attach at end of document. Are these documents/records available to the system users? X YesNo
<ul><li>Do you know and are you in contact with other public water systems that are near your system?</li><li>X Yes</li><li>No</li></ul>
16) Have any of the preceding 15 questions caused you to think that you may want to change your current practices? If so, list the issue on the To Do form on page 6
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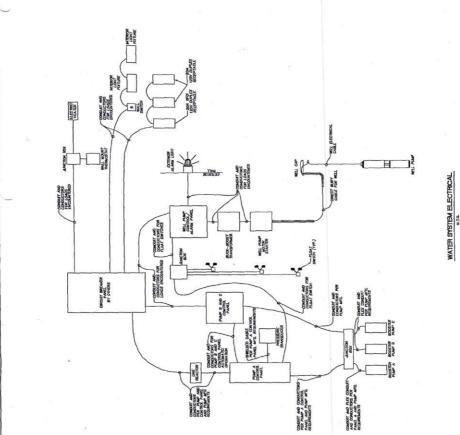
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